

#### 4.1-4.3 Quiz

①

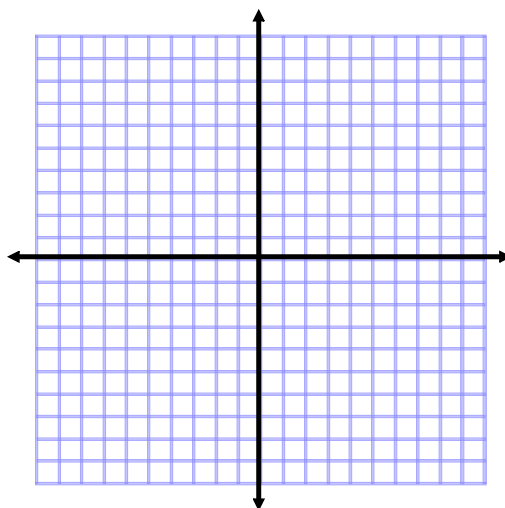
$$g(x) = 2(x+3)^2 - 2$$

- a) Label the parent function: \_\_\_\_\_  
 Label the coordinates of the Child Function vertex: \_\_\_\_\_  
 Label the axis of symmetry of the child function \_\_\_\_\_

- b) *Describe the transformation of the baby function.*  
 Horizontal Shift: \_\_\_\_\_  
 Vertical Shift: \_\_\_\_\_

- c) *Use Interval Notation below.*  
 State the Domain: \_\_\_\_\_  
 State the Range: \_\_\_\_\_

- d) Graph BOTH the parent function and the baby function on the coordinate plane.



②

$$f(x) = 2x^2 - 8x + 6$$

- a) Does the graph open Up or Down? \_\_\_\_\_

- b) Label the axis of symmetry: \_\_\_\_\_

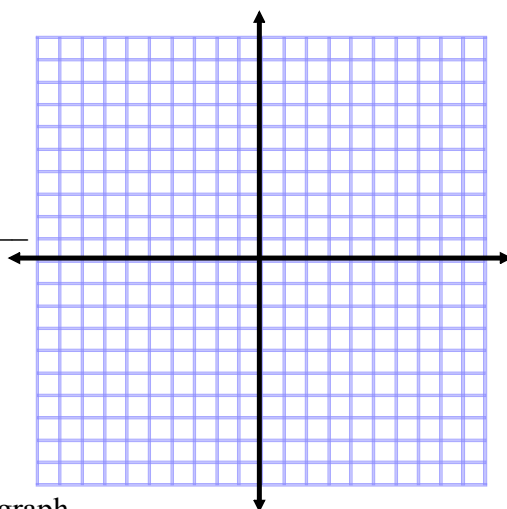
- c) Label the coordinates of the vertex: \_\_\_\_\_

- d) Label the x-intercepts: \_\_\_\_\_

- e) Label the y-intercept: \_\_\_\_\_

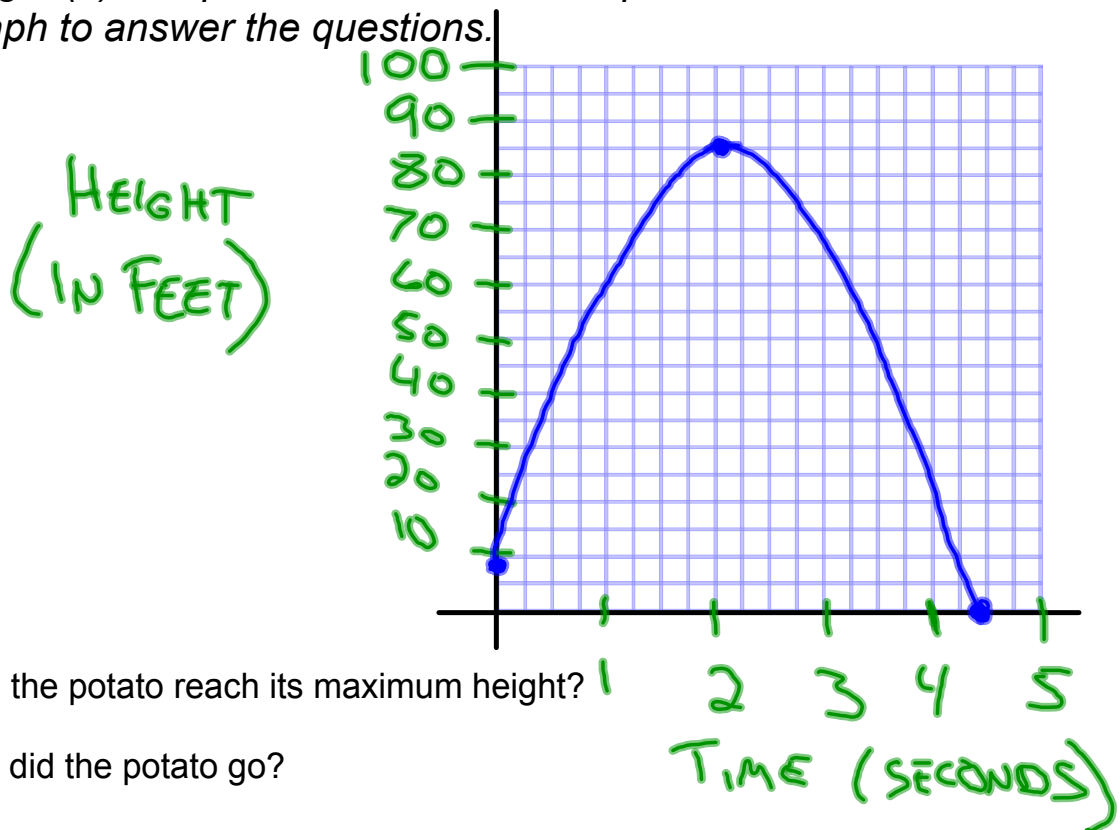
- f) Domain: \_\_\_\_\_ Range: \_\_\_\_\_

- g) Plot each of the coordinates found above and sketch a graph.



#### 4.1-4.3 Quiz

- ③ The graph at the right shows the function between time ( $t$ ) and height ( $h$ ) of a potato launched from a potato cannon. Use the graph to answer the questions.



When did the potato reach its maximum height?

How high did the potato go?

How long was the potato in the air?

How high above the ground was the potato launcher?

Solve each equation by factoring or by using the quadratic formula.

④  $x^2 + 11x - 12 = 0$       ⑤  $3x^2 + 7x = -4$